

REMARKS/ARGUMENTS

The July 1, 2005 Office Action has rejected pending claims 39-55 under 35 U.S.C. § 112 and 39-41, 43-47 and 49-55 are rejected under 35 U.S.C. § 103(a). In light of the amendments above and the arguments below, Applicants respectfully request reconsideration.

Applicants have cancelled claims 39-55. Claim 56, which was not rejected, has been redrafted in independent form. Applicants have inserted the “strain 5” language discussed below. Claims 57 and 58 were not rejected. Applicants believe that claims 56, 57 and 58 are now in condition for allowance.

New claims 59-64 have been submitted to address the Examiner’s concerns.

Claim Objection

The Examiner has objected to claim 52 because of the use of abbreviations. Applicants have cancelled claim 52.

Section 112 Rejections

The Examiner has rejected claim 48 as unclear. Applicants have now cancelled claim 48.

Claims 39-51 and 51-55 are rejected under 35 U.S.C. § 112, first paragraph. The Examiner notes that the claims “are directed to all possible methods of preparing a cDNA molecule or amplifying a nucleic acid molecule comprising mixing any RNA template with any thermostable DNA polymerase for *B. Stearothermophilus* and incubating under conditions sufficient to amplify a DNA molecule.” The Examiner notes that the specification provides representative methods of use of DNA polymerases isolated from the Bst strain ATCC number 12980.

Applicants have now submitted new claim 5 drawn to Bst "type strain 5" as described in the specification (see for example page 12, line 8). This is the Bst polymerase deposited at the ATCC number. The strain can also be obtained from other sources or isolated independently. Applicants believe that they have complied with the Examiner's suggested change.

Section 103 Rejection

Claims 39-41, 43-47 and 49-55 are rejected under 35 U.S.C. §103(a) as being unpatentable over Swaminathan et al. and Spargo et al. Applicants note that Swaminathan et al. (U.S. Patent No. 5,830,714) did not use magnesium ions but only used manganese ions for reverse transcription, as was known in the art. Spargo et al. (Mol Cell Probes 10: 247-56, 1996) described use of the Bst DNA polymerase only for detection of DNA, not RNA. Therefore, this reference is not relevant to the present invention, which is a method for reverse transcription of RNA. It is well-known in the art that magnesium ions are used for DNA-dependent DNA polymerase reactions, but it was a surprising and unexpected finding that Bst DNA polymerase could be used to make cDNA molecules (ranging in size from >400 bases to >4000 bases) from RNA templates in the presence of magnesium ions and the substantial absence of manganese ions.

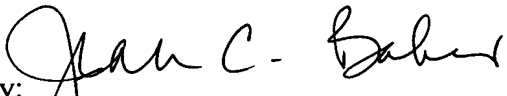
Applicants note that claims 42 and 48 were not rejected. Claim 42 is drawn to the method "wherein said polymerase is modified or mutated to reduce or eliminate 3'-5' exonuclease activity." New claim 64 contains the same limitation. Therefore, Applicants believe that regardless of the Examiner's view on Applicant's obviousness argument, claim 64 is independently patentable.

Appl. No. 09/979,518
Response to Office Action of July 1, 2005

Applicants respectfully request allowance. A Petition and Fee for Three Months Extension of Time is enclosed. If any other fees are necessary, please charge Deposit Account 17-0055.

Respectfully submitted,

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